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Conference Abstract

EcoBank: Pioneering Standards for Ecological Data Sharing and Utilization in South Korea

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Abstract

Ecological Information Bank (EcoBank) plays a crucial role in collecting, standardizing and disseminating biodiversity information in South Korea. Initially established to integrate and share ecological survey data at a national level, EcoBank has expanded its data acquisition beyond national borders and through citizen science-based biodiversity surveys. One of the central missions of EcoBank is to commit to the ecological data standardization by applying Public Data Portal's guideline (Public Data Portal 2023), to facilitate efficient data sharing and utilization. Adhering to Common Standard Terms (Public Data Portal 2022) approved by the Ministry of Interior and Safety of South Korea, and the PostgreSQL-based relational database system (Kim et al. 2021), EcoBank continually seeks to embrace internationally recognized biodiversity-related data and metadata standards such as Darwin Core (Wieczorek et al. 2012) and Ecological Metadata Language (Fegraus et al. 2005). This effort not only ensures compatibility and interoperability with ecological data from various sources but also highlights the necessity of examining gaps, opportunities, limitations and future directions in the current standardization initiatives of EcoBank. This study reviews the current data (Public Data Portal 2022) and metadata standards (Telecommunications Technology Association 2020) applied to EcoBank and and conducts a SWOT (strengths, weaknesses, oppourtunities and threats) analysis to assess EcoBank's technological assets, human resources, regulatory frameworks, along with internal and external requirements. This analysis will identify strengths, such as EcoBank's extensive network and data collection capabilities; weaknesses such as lacking expertise in data standardizations;

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opportunities for promotion of data-centered environment with rising biodiversity data demand; and threats including technological lags and institutional constraints. The findings are intended to guide strategic planning of ecological data standardization, enhancing EcoBank's contributions to both national and international biodiversity information communities.

Keywords

ecological information, biodiversity, relational database, SWOT analysis

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Conflicts of interest

The authors have declared that no competing interests exist.

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